CPC COOPERATIVE PATENT CLASSIFICATION

H04M   **TELEPHONIC COMMUNICATION** (counting mechanisms G06M; circuits for controlling other apparatus via a telephone cable and not involving telephone switching apparatus G08; reels or other take-up devices for cords H02G 11/00; multiplex transmission between switching centres H04J; selecting arrangements H04Q; loudspeakers, microphones, gramophone pick-ups or like electromechanical transducers H04R)

NOTE

> This subclass covers :
>
> - telephonic communication systems combined with other electrical systems;
> - testing arrangements peculiar to telephonic communication systems.
>
> In this subclass, the following terms or expressions are used with the meanings indicated :
>
> - "subscriber" is a general term for terminal equipment, e.g. telephone for public use;
> - "substation" means a subscriber or monitoring equipment which may connect a single subscriber to a line without choice as to subscriber;
> - "satellite" is a type of exchange the operation of which depends upon control signals received from a supervisory exchange;
> - "switching centres" includes exchanges and satellites.

WARNING

[C2011.01]
> The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups are classified in the following CPC groups :
>
> **H04M 1/36** covered by H04M 1/677
> H04M 7/02 covered by H04Q 3/00
> H04M 7/04 covered by H04Q 3/00
> H04M 7/10 covered by H04Q 3/00

H04M 1/00   **Substation equipment, e.g. for use by subscribers; Analogous equipment at exchanges** (prepayment telephone coin boxes H04M 17/00; current supply arrangements H04M 19/00; {telephone sets particularly adapted for data transmission H04M 11/066; network interface devices H04Q 1/028})

H04M 1/003   .   {Telephone sets using electrooptical means in the transmission path}

H04M 1/006   .   {Call diverting means}

H04M 1/02   .   Constructional features of telephone sets

H04M 1/0202   . .   { Portable telephone sets, e.g. cordless phones, mobile phones or bar type handsets (constructional features of telephone transmitters or receivers, e.g. of speakers or microphones H04M 1/03; mounting of the dialing module H04M 1/23; with protection against RF exposure H04B 1/3838)}

WARNING

Groups H04M 1/0249 to H04M 1/0285 are not complete pending a reorganisation. See also group H04M 1/0202

H04M 1/0206   . . .   { Portable telephones comprising a plurality of mechanically joined movable body parts, e.g. hinged housings}

H04M 1/0208   . . . .   { characterized by the relative motions of the body parts}

H04M 1/021   . . . . .   { using combined folding and rotation motions (combined with translation movement H04M 1/0235)}

H04M 1/0212   . . . . . .   { with a two degrees of freedom mechanism, i.e. folding around a first axis and rotating around a second axis perpendicular to the first}

H04M 1/0214   . . . . .   { Foldable telephones, i.e. with body parts pivoting to an open position around an axis parallel to the plane they define in closed position (combined with translation movement H04M 1/0235)}

H04M 1/0216   . . . . . .   { Foldable in one direction, i.e. using a one degree of freedom hinge}

H04M 1/0218   . . . .   { The hinge comprising input and/or output user interface means}

H04M 1/022   . . . .   { The hinge comprising two parallel pivoting axes}

H04M 1/0222   . . . . . .   { Foldable in two directions, i.e. using a two degree of freedom hinge}

H04M 1/0225   . . . . .   { Rotatable telephones, i.e. the body parts pivoting to an open position around an axis perpendicular to the plane they define in closed position (combined with translation movement H04M 1/0235)}

H04M 1/0227   . . . . . .   { Rotatable in one plane, i.e. using a one degree of freedom hinge}

H04M 1/0229   . . . .   { The hinge comprising input and/or output user interface means}

H04M 1/0231   . . . . . .   { Including a rotatable keypad body part}

H04M 1/0233   . . . . . .   { Including a rotatable display body part}

H04M 1/0235   . . . . .   { Slidable or telescopic telephones, i.e. with a relative translation movement of the body parts; Telephones using a combination of translation and other relative motions of the body parts}

H04M 1/0237   . . . . . .   { Sliding mechanism with one degree of freedom}

H04M 1/0239   . . . . . .   { Sliding mechanism with two degree of freedom, e.g. translation in two different directions}

H04M 1/0241   . . . .   { using relative motion of the body parts to change the operational status of the telephone set, e.g. switching on/off, answering incoming call}

H04M 1/0243   . . . . .   { using the relative angle between housings}

H04M 1/0245   . . . . .   { using open/close detection}

H04M 1/0247   . . . .   { comprising more than two body parts}

H04M 1/0249   . . .   { Details of the mechanical connection between the housing parts or relating to the method of assembly}

H04M 1/0252   . . . .   { by means of a snap-on mechanism}

H04M 1/0254   . . .   { comprising one or a plurality of mechanically detachable modules}

H04M 1/0256   . . . .   { wherein the modules are operable in the detached state, e.g. one module for the user interface and one module for the transceiver}

H04M 1/0258	. . . .	{ for a headset device (constructional features of headsets H04M 1/05; headsets for handsfree use H04M 1/6058)}
H04M 1/026	. . .	{ Details of the structure or mounting of specific components}
H04M 1/0262	. . . .	{ for a battery compartment}
H04M 1/0264	. . . .	{ for a camera module assembly (photo or video cameras per se G03B; television cameras per se H04N 5/225)}
H04M 1/0266	. . . .	{ for a display module assembly (for fixed telephones H04M 1/0295)}
H04M 1/0268	. . . . .	{ including a flexible display panel}
H04M 1/027	. . . . .	{ including magnifying means}
H04M 1/0272	. . . .	{ for a projector or beamer module assembly (constructional features of projectors per se G03B21; constructional details of projectors using electronic spatial light modulators per se H04N 9/31)}
H04M 1/0274	. . . .	{ for an electrical connector module}
H04M 1/0277	. . . .	{ for a printed circuit board assembly}
H04M 1/0279	. . .	{ Improving the user comfort or ergonomics}
H04M 1/0281	. . . .	{ for providing single handed use or left/right hand conversion}
H04M 1/0283	. . . .	{ for providing a decorative aspect, e.g. customization of casings, exchangeable faceplate}
H04M 1/0285	. . . .	{ Pen-type handsets}
H04M 1/0287	. . .	{ being disposable or recyclable }
H04M 1/0289	. .	{Telephone sets for operators}
H04M 1/0291	. .	{Door telephones}
H04M 1/0293	. .	{Terminal boxes for telephone sets}
H04M 1/0295	. .	{ mechanical mounting details of display modules (for portable telephones H04M 1/0266)}
H04M 1/0297	. .	{ Telephone sets adapted to be mounted on a desk or on a wall}
H04M 1/03	. .	Constructional features of telephone transmitters or receivers, e.g. telephone handsets, { speakers or microphones}(transducers in general H04R 1/00)
H04M 1/035	. . .	{ Improving the acoustic characteristics by means of constructional features of the housing, e.g. ribs, walls, resonating chambers or cavities}
H04M 1/04	. .	Supports for telephone transmitters or receivers (for transducers in general H04R 1/00)
H04M 1/05	. . .	adapted for use on head, throat, or breast {(handsfree use of portable phones H04M 1/6041)}
H04M 1/06	. . .	Hooks; Cradles
H04M 1/08	. . . .	associated with switches operated by weight of receiver or hand-set
H04M 1/10	. . . .	associated with switches operated by magnetic effect due to proximity of receiver or hand-set
H04M 1/11	. .	Supports for sets, e.g. incorporating armrests
H04M 1/12	. . .	Adjustable supports, e.g. extensible
H04M 1/13	. . . .	pantographic
H04M 1/14	. . .	with resilent means to eliminate extraneous vibrations
H04M 1/15	. .	Protection of telephone cord; Guiding telephone cord; Winding-up telephone cord (in general H02G 11/00)
H04M 1/17	. .	Hygienic or sanitary devices on telephone equipment (for mouth-pieces or earpieces per se H04R 1/12)

H04M 1/18	. .	Telephone sets modified for use in ships, mines, or other places exposed to adverse environment (H04M 1/19 takes precedence; telephone cabinets per se E04H 1/14)
H04M 1/185	. . .	{ Improving the rigidity of the casing or resistance to shocks}
H04M 1/19	. .	Arrangements of transmitters, receivers, or complete sets to prevent eavesdropping, to attenuate local noise or to prevent undesired transmission; Special mouthpieces or receivers therefor (circuit arrangements for preventing eavesdropping H04M 1/68; telephone cabinets per se E04H 1/14)
H04M 1/20	. .	Arrangements for preventing acoustic feed-back (H04M 1/62 takes precedence)
H04M 1/21	. .	Combinations with auxiliary equipment, e.g. with clock, with memoranda pad
H04M 1/215	. . .	by non-intrusive coupling means, e.g. acoustic couplers
H04M 1/2155	. . . .	{Acoustic coupling}
H04M 1/22	. .	Illuminating; Arrangements for improving visibility of characters on dials
H04M 1/23	. .	Construction or mounting of dials or of equivalent devices; Means for facilitating the use thereof (by improving visibility H04M 1/22)
H04M 1/233	. . .	{ including a pointing device, e.g. roller key, track ball, rocker switch or joystick (constructional details of pointing devices per se G06F 3/033)}
H04M 1/236	. . .	{ including keys on side or rear faces}
H04M 1/24	.	Arrangements for testing (measuring electric values G01R; testing transducers H04R 29/00)
H04M 1/247	.	Telephone sets including user guidance or features selection means facilitating their use; { Fixed telephone terminals for accessing a variety of communication services via the PSTN network}
H04M 1/2471	. .	[N: Configurable and interactive telephone terminals with subscriber controlled features modifications, e.g. with ADSI capability (Analog Display Services Interface)(systems providing special services or facilities to subscribers H04M 3/42; administration or customization of services H04M 3/42136; by downloading data to substation equipment H04M 3/42178)
H04M 1/2472	. . .	{ with programmable function keys}
H04M 1/2473	. .	{ Telephone terminals interfacing a personal computer, e.g. using an API (Application Programming Interface)(details of API H04M 7/0021)}
H04M 1/2474	. .	{ Telephone terminals specially adapted for disabled people (H04M 1/72588 takes precedence; network based special services or facilities for hearing-impaired persons H04M 3/42391; devices for conversing with the deaf-blind G09B 21/04)}
H04M 1/2475	. . .	{ for a hearing impaired user (hearing-aids per se H04R 25/00)}
H04M 1/2476	. . .	{ for a visually impaired user (H04M 1/22 takes precedence)}
H04M 1/2477	. .	{for selecting a function from a menu display (H04M 1/2474 takes precedence)}
H04M 1/2478	. .	{ Telephone terminals specially adapted for non-voice services, e.g. email, internet access (centralized arrangements where telephones services are combined H04M 7/0024; for recording text messages H04M 3/5322; for accessing Internet H04M 3/4938)}
H04M 1/253	.	Telephone sets using digital voice transmission (simultaneous speech and data transmission H04M 11/06; {ISDN terminal access circuits H04Q 11/0471})
H04M 1/2535	. .	{ adapted for voice communication over an Internet Protocol (IP) network (Voice over Internet Protocol (VoIP) network equipment and services H04M 7/006; internet protocols H04L 29/06095)}

H04M 1/26	.	Devices for signalling identity of wanted subscriber (constructional features H04M 1/23)
H04M 1/27	. .	Devices whereby a plurality of signals may be stored simultaneously {(devices disposed in the exchange H04M 3/424, H04M 3/44)}
H04M 1/271	. . .	{controlled by voice recognition}
H04M 1/272	. . .	with provision for storing only one subscriber number at a time, e.g. by keyboard or dial
H04M 1/2725	. . . .	{using electronic memories}
H04M 1/274	. . .	with provision for storing more than one subscriber number at a time, e.g. using toothed disc
H04M 1/2745	. . . .	using static electronic memories, i.e. memories whose operation does not require relative movement between storage means and a transducer, e.g. chip; {(Fax machines H04N 1/32037)}
H04M 1/274508	. . . . .	{ Telephone number directory allowing to store a plurality of information regarding one subscriber}
H04M 1/274516	. . . . .	{whose content are provided by data transmission or downloaded}
H04M 1/274525	. . . . .	{Retrieving by scrolling on a display}
H04M 1/274533	. . . . .	{ Telephone number directory management, e.g. manually editing, erasing or modifying data stored in the directory}
H04M 1/27455	. . . . .	{Retrieving by interactive graphical means or pictorial representation}
H04M 1/274558	. . . . .	{Retrieving by matching an alphabetic string}
H04M 1/274566	. . . . .	{Appending a prefix or inserting a pause to a dialling sequence}
H04M 1/274575	. . . . .	{Automatic call origination and retry systems, e.g. on off-hook or redial on busy}
H04M 1/274583	. . . . .	{Sorted according to a specific criteria, e.g. history or frequency of use}
H04M 1/274591	. . . . .	{Implemented by means of discrete electronic components, i.e. neither programmable nor micro-processor controlled (H04M 1/274516 to H04M 1/274583 take precedence)}
H04M 1/275	. . . . .	implemented by means of portable electronic directories
H04M 1/2755	. . . . .	whose contents are provided by optical scanning
H04M 1/276	. . . .	using magnetic recording, e.g. on tape
H04M 1/2765	. . . . .	{implemented by means of portable magnetic cards}
H04M 1/278	. . . .	using punched cards or tapes
H04M 1/30	. .	Devices which can set up and transmit only one digit at a time
H04M 1/31	. . .	by interrupting current to generate trains of pulses; by periodically opening and closing contacts to generate trains of pulses
H04M 1/312	. . . .	{pulses produced by electronic circuits}
H04M 1/315	. . . .	Clutches, spring assemblies, speed regulators, e.g. centrifugal brakes (H04M 1/32 to H04M 1/40 take precedence)
H04M 1/32	. . . .	Locking setting devices during transmission to prevent interference by user
H04M 1/34	. . . .	Lost-motion or other arrangements for ensuring a pause between successive digit transmissions
H04M 1/38	. . . .	Pulses transmitted by a movement variably limited by the setting of a stop
H04M 1/40	. . . .	wherein the setting-operation short-circuits or open-circuits the transmitting mechanism during a variable part of a cycle
H04M 1/50	. . .	by generating or selecting currents of predetermined frequencies or

combinations of frequencies

H04M 1/505	. . . .	{signals generated in digital form}
H04M 1/515	. .	by generating or selecting other signals than trains of pulses of similar shape or other signals than currents of one or more different frequencies, e.g. generation of direct current signals of alternating polarity, coded pulses, impedance dialling
H04M 1/52	. .	Arrangements wherein a dial or equivalent is mechanically coupled to a line selector
H04M 1/53	. .	Generation of additional signals, e.g. additional pulses
H04M 1/54	. . .	Arrangements wherein a dial or equivalent generates identifying signals, e.g. in party-line systems
H04M 1/56	.	Arrangements for indicating or recording the called number at the calling subscriber`s set
H04M 1/57	.	Arrangements for indicating or recording the number of the calling subscriber at the called subscriber`s set (at the operator set in a manual exchange H04M 5/20)
H04M 1/571	. .	{ Blocking transmission of caller identification to called party}
H04M 1/573	. .	{Line monitoring circuits for detecting caller identification}
H04M 1/575	. .	{Means for retrieving and displaying personal data about calling party}
H04M 1/576	. . .	{associated with a pictorial or graphical representation}
H04M 1/578	. . .	{associated with a synthesized vocal announcement}
H04M 1/58	.	Anti-side-tone circuits (hybrid circuits for carrier-frequency operation H04B 1/00)
H04M 1/585	. .	{implemented without inductive element}
H04M 1/60	.	including speech amplifiers
H04M 1/6008	. .	{in the transmitter circuit}
H04M 1/6016	. .	{in the receiver circuit}
H04M 1/6025	. .	{implemented as integrated speech networks}
H04M 1/6033	. .	{for providing handsfree use or a loudspeaker mode in telephone sets (arrangements for preventing acoustic echo H04M 9/08)}
H04M 1/6041	. . .	{Portable telephones adapted for handsfree use}
H04M 1/605	. . . .	{involving control of the receiver volume to provide a dual operational mode at close or far distance from the user}
H04M 1/6058	. . . .	{involving the use of a headset accessory device connected to the portable telephone}
H04M 1/6066	. . . . .	{including a wireless connection}
H04M 1/6075	. . . .	{adapted for handsfree use in a vehicle (H04M 1/6058 takes precedence; arrangements for holding telephones in a vehicle B60R 11/0241)}
H04M 1/6083	. . . . .	{by interfacing with the vehicle audio system}
H04M 1/6091	. . . . . .	{including a wireless interface}
H04M 1/62	. .	Constructional arrangements
H04M 1/64	.	Automatic arrangements for answering calls; Automatic arrangements for recording messages for absent subscribers; Arrangements for recording conversations (centralised dictation systems H04M 11/10)
H04M 1/642	. .	{storing speech in digital form}

H04M 1/645	. . .	{with speech synthesis}
H04M 1/647	. .	{using magnetic tape (H04M 1/642 takes precedence)}
H04M 1/65	. .	Recording arrangements {for recording a message from the calling party (in the exchange H04M 3/50)}
H04M 1/6505	. . .	{storing speech in digital form}
H04M 1/651	. . . .	{with speech synthesis}
H04M 1/6515	. . .	{using magnetic tape (H04M 1/6505 takes precedence)}
H04M 1/652	. . .	Means for playing back the recorded messages by remote control over a telephone line (H04M 1/658 takes precedence)
H04M 1/654	. . .	Telephone line monitoring circuits therefor, e.g. ring detector
H04M 1/6545	. . . .	{mechanically actuating hook switch, e.g. lifting handset}
H04M 1/656	. . .	for recording conversations
H04M 1/658	. . .	Means for redirecting recorded messages to other extensions or equipment
H04M 1/66	.	with means for preventing unauthorised or fraudulent calling (verifying user identity or authority in secret or secure digital communications H04L 9/32)
H04M 1/663	. .	Preventing unauthorised calls to a telephone set
H04M 1/665	. . .	by checking the validity of a code
H04M 1/667	. .	Preventing unauthorised calls from a telephone set (H04M 1/677 takes precedence)
H04M 1/67	. . .	by electronic means
H04M 1/673	. . . .	the user being required to key in a code
H04M 1/675	. . . .	the user being required to insert a coded card, e.g. a smart card carrying an integrated circuit chip ({for constructional features in portable telephones H04B 1/3816})
H04M 1/677	. .	Preventing the dialling or sending of predetermined telephone numbers or selected types of telephone numbers, e.g. long distance
H04M 1/6775	. . .	by providing access to preprogrammed keys]
H04M 1/68	.	Circuit arrangements for preventing eavesdropping
H04M 1/70	. .	Lock-out or secrecy arrangements in party-line systems
H04M 1/72	.	Substation extension arrangements; Cordless telephones, i.e. devices for establishing wireless links to base stations without route selecting {(constructional features of cordless telephones H04M 1/0202)}
H04M 1/723	. .	using two or more extensions per line (H04M 1/725 takes precedence)
H04M 1/725	. .	Cordless telephones {(for handsfree use H04M 1/6041)}
H04M 1/72502	. . .	{with one base station connected to a single line}
H04M 1/72505	. . . .	{Radio link set-up procedure}
H04M 1/72508	. . . . .	{using a control channel}
H04M 1/72511	. . . . .	{Searching for an available channel}
H04M 1/72513	. . . . .	{On hold, intercom or transfer communication modes}
H04M 1/72516	. . . .	{ including out-of-range alerting means}
H04M 1/72519	. . .	{Portable communication terminals with improved user interface to control a main telephone operation mode or to indicate the communication status}
H04M 1/72522	. . . .	{With means for supporting locally a plurality of applications to increase the

		functionality (for selecting a function in a menu H04M 1/2477)}
H04M 1/72525	. . . . .	{provided by software upgrading or downloading}
H04M 1/72527	. . . . .	{provided by interfacing with an external accessory (hands-free H04M 1/6041)}
H04M 1/7253	. . . . . .	{using a two-way short-range wireless interface}
H04M 1/72533	. . . . . .	{for remote control of appliances}
H04M 1/72536	. . . . .	{ for supporting an emergency service (alarm systems G08B; telephonic communication systems in combination with alarm systems H04M 11/04; telephone sets for disabled persons H04M 1/2474)}
H04M 1/72538	. . . . . .	{ with automatic feature activation, e.g. upon sensing of an alarm condition}
H04M 1/72541	. . . . . .	{ with manual feature activation}
H04M 1/72544	. . . . .	{for supporting a game or graphical animation}
H04M 1/72547	. . . . .	{with interactive input/output means for internally managing multimedia messages (Mail systems for messages comprising audio and non-audio componentsH04M 3/5307; Message switching systems H04L 12/58)}
H04M 1/7255	. . . . . .	{for voice messaging, e.g. dictaphone (for answering an incoming call H04M 1/64)}
H04M 1/72552	. . . . . .	{for text messaging, e.g. sms, e-mail}
H04M 1/72555	. . . . . .	{for still or moving picture messaging (systems for transmission of still picture signals H04N 1/00095; Videophones H04N 7/14)}
H04M 1/72558	. . . . .	{ for playing back music files (portable music players per se G11B27)}
H04M 1/72561	. . . . .	{for supporting an internet browser application}
H04M 1/72563	. . . .	{ with means for adapting by the user the functionality or the communication capability of the terminal under specific circumstances}
H04M 1/72566	. . . . .	{ according to a schedule or a calendar application (network applications for presence management H04L 29/08684)}
H04M 1/72569	. . . . .	{ according to context or environment related information}
H04M 1/72572	. . . . .	{ according to a geographic location (user location related services provided by wireless communication networks H04W 4/02; network applications adapted for the location of the user terminal H04L 29/08657)}
H04M 1/72575	. . . . .	{ by connection of an exchangeable housing part}
H04M 1/72577	. . . .	{ to restrict the functionality or the communication capability of the terminal (network access restriction H04W 48/02)}
H04M 1/7258	. . . .	{by using keys with multiple functionality defined by the current phone mode or status}
H04M 1/72583	. . . .	{ for operating the terminal by selecting telephonic functions from a plurality of displayed items, e.g. menus, icons (interaction techniques for Graphical User Interfaces per se G06F 3/048)}
H04M 1/72586	. . . . .	{ wherein the items are sorted according to a specific criteria, e.g. frequency of use}
H04M 1/72588	. . . .	{ specially adapted for disabled people (devices for conversing with the deaf-blind G09B 21/04)}
H04M 1/72591	. . . . .	{ for a hearing impaired user (hearing-aids per se H04R 25/00)}
H04M 1/72594	. . . . .	{ for a visually impaired user (H04M 1/22 takes precedence)}
H04M 1/72597	. . . .	{ wherein handling of applications is triggered by incoming communication events (changing user alerting upon occurrence of events H04M 19/04)}

H04M 1/727	. . .	Identification code transfer arrangements
H04M 1/73	. . .	Battery saving arrangements {(by switching on/off the receiving circuit H04B 1/1615)}
H04M 1/733	. . .	with a plurality of base stations connected to a plurality of lines {(for selection in cordless PBX H04Q 7/26)}
H04M 1/737	. . .	characterised by transmission of electromagnetic waves other than radio waves, e.g. infra-red
H04M 1/738	.	Interface circuits for coupling substations to external telephone lines (H04M 1/78 takes precedence)
H04M 1/7385	. .	{Programmable or microprocessor-controlled}
H04M 1/74	. .	with means for reducing interference; with means for reducing effects due to line faults
H04M 1/745	. . .	{Protection devices or circuits for voltages surges on the line}
H04M 1/76	. .	Compensating for differences in line impedance (in general H04B)
H04M 1/78	.	Circuit arrangements in which low-frequency speech signals proceed in one direction on the line, while speech signals proceeding in the other direction on the line are modulated on a high-frequency carrier signal (repeater circuits H04B 3/38)
H04M 1/80	.	Telephone line holding circuits
H04M 1/82	.	Line monitoring circuits for call progress or status discrimination {(for detecting caller identity H04M 1/573)}
H04M 3/00		**Automatic or semi-automatic exchanges** {(constructional details of telephone exchanges H04Q 1/02)}
H04M 3/002	.	{Applications of echo suppressors or cancellers in telephonic connections (in two-way loud-speaking telephone systems H04M 9/08, echo suppressors or cancellers per se H04B 3/20)}
H04M 3/005	.	{Interface circuits for subscriber lines (current supply H04M 19/00 and subgroups; supervisory, monitoring or testing arrangements H04M 3/22 and subgroups; in key telephone systems H04M 9/006)}
H04M 3/007	. .	{Access interface units for simultaneous transmission of speech and data, e.g. digital subscriber line (DSL) access interface units (DSL access multiplexersH04Q 11/0478, andH04L 12/2856)}
H04M 3/02	.	Ringing or otherwise calling substations (selective calling H04Q)
H04M 3/04	. .	calling signal supplied from final selector
H04M 3/06	. .	calling signal supplied from subscriber`s line circuit
H04M 3/08	.	Indicating faults in circuits or apparatus
H04M 3/085	. .	{Fault locating arrangements}
H04M 3/10	. .	Providing fault or trouble signals
H04M 3/12	. .	Marking faulty circuits "busy"; Enabling equipment to disengage itself from faulty circuits; {Using redundant circuits; Response of a circuit, apparatus or system to an error}
H04M 3/14	. .	Signalling existence of persistent "off-hook" condition

H04M 3/16	.	with lock-out or secrecy provision in party-line systems
H04M 3/18	.	with means for reducing interference {or noise}; with means for reducing effects due to line faults {with means for protecting lines}
H04M 3/20	.	with means for interrupting existing connections; with means for breaking-in on conversations
H04M 3/205	. .	{ Eavesdropping prevention - indication of insecurity of line or network}
H04M 3/22	.	Supervisory, monitoring, {management, i.e. operation, administration, maintenance} or testing arrangements
H04M 3/2209	. .	{ for lines also used for data transmission}
H04M 3/2218	. .	{Call detail recording}
H04M 3/2227	. .	{Quality of service monitoring}
H04M 3/2236	. .	{Quality of speech transmission monitoring}
H04M 3/2245	. .	{ Management of the local loop plant}
H04M 3/2254	. .	{in networks}
H04M 3/2263	. . .	{Network management}
H04M 3/2272	. .	{Subscriber line supervision circuits, e.g. call detection circuits}
H04M 3/2281	. .	{ Call monitoring, e.g. for law enforcement purposes; Call tracing; Detection or prevention of malicious calls}
H04M 3/229	. .	{Wire identification arrangements; Number assignment determination}
H04M 3/24	. .	with provision for checking the normal operation
H04M 3/241	. . .	{for stored program controlled exchanges}
H04M 3/242	. . . .	{Software testing}
H04M 3/244	. . .	{for multiplex systems (**H04M 3/30B** takes precedence)}
H04M 3/245	. . . .	{for ISDN systems}
H04M 3/247	. . .	{Knowledge-based maintenance systems}
H04M 3/248	. . .	{for metering arrangements or prepayment telephone systems (metering arrangements per se H04M 15/00; prepayment telephone systems per se H04M 17/00)}
H04M 3/26	. .	with means for applying test signals {or for measuring}
H04M 3/28	. . .	Automatic routine testing {; Fault testing; Installation testing; Test methods, test equipment or test arrangements therefor}
H04M 3/30	. . . .	for subscriber`s lines {, for the local loop}
H04M 3/301	. . . . .	{Circuit arrangements at the subscriber`s side of the line}
H04M 3/302	. . . . .	{using modulation techniques for copper pairs (for ISDN systems H04M 3/245; ISDN selection or connection testing arrangements H04Q 11/045)}
H04M 3/303	. . . . . .	{and using PCM multiplexers, e.g. pair gain systems}
H04M 3/304	. . . . . .	{and using xDSL modems (xDSL line qualification H04M 3/306)}
H04M 3/305	. . . . .	{testing of physical copper line parameters, e.g. capacitance or resistance (locating faults in cables G01R 31/08)}
H04M 3/306	. . . . . .	{for frequencies above the voice frequency, e.g. xDSL line qualification (test methods, test equipment and test arrangements for subscriber lines using xDSL modems H04M 3/304; Systems modifying

transmission characteristics according to link quality H04L 1/0001; Monitoring and/or testing of line transmission systems H04B 3/46)}

H04M 3/307	. . . . .	{ using ringback}
H04M 3/308	. . . . .	{ Craftsperson test terminals}
H04M 3/32	. . . .	for lines between exchanges
H04M 3/323	. . . . .	{for the arrangements providing the connection (test connection, test call, call simulation)}
H04M 3/326	. . . . .	{for registers and translators}
H04M 3/34	. . .	Testing for cross-talk (in lines generally H04B)
H04M 3/36	. .	Statistical metering, e.g. recording occasions when traffic exceeds capacity of trunks (digital computers for evaluating statistical data G06F 17/18)
H04M 3/362	. . .	{Traffic simulation}
H04M 3/365	. . .	{Load metering of control unit}
H04M 3/367	. . .	{ Traffic or load control }
H04M 3/38	.	Graded-service arrangements, i.e. some subscribers prevented from establishing certain connections (queueing arrangements {H04M 3/523}, H04Q 3/64)
H04M 3/382	. .	{using authorisation codes or passwords}
H04M 3/385	. . .	{ using speech signals}
H04M 3/387	. .	{ using subscriber identification cards}
H04M 3/40	.	Applications of speech amplifiers
H04M 3/42	.	Systems providing special services or facilities to subscribers
H04M 3/42008	. .	{ Systems for anonymous communication between parties, e.g. by use of disposal contact identifiers}
H04M 3/42017	. .	{ Customized ring-back tones}
H04M 3/42025	. .	{ Calling or Called party identification service (not used)}
H04M 3/42034	. . .	{Calling party identification service (not used)}
H04M 3/42042	. . . .	{Notifying the called party of information on the calling party (details within substation equipment H04M 1/57, signalling details H04Q 3/72)}
H04M 3/42051	. . . . .	{where the notification is included in the ringing tone}
H04M 3/42059	. . . .	{ Making use of the calling party identifier}
H04M 3/42068	. . . . .	{ where the identifier is used to access a profile}
H04M 3/42076	. . . . .	{ where the identifier is a Uniform Resource Locator}
H04M 3/42085	. . .	{Called party identification service (not used)}
H04M 3/42093	. . . .	{ Notifying the calling party of information on the called or connected party}
H04M 3/42102	. . . .	{ Making use of the called party identifier}
H04M 3/4211	. . . . .	{ where the identifier is used to access a profile}
H04M 3/42119	. . . . .	{ where the identifier is a Uniform Resource Locator}
H04M 3/42127	. .	{Systems providing several special services or facilities from groups H04M 3/42008 to H04M 3/58}
H04M 3/42136	. .	{Administration or customisation of services}
H04M 3/42144	. . .	{by service provider}
H04M 3/42153	. . .	{by subscriber}

H04M 3/42161	. . . .	{ via computer interface}
H04M 3/4217	. . .	{Managing service interactions}
H04M 3/42178	. . .	{by downloading data to substation equipment}
H04M 3/42187	. .	{ Lines and connections with preferential service}
H04M 3/42195	. .	{Arrangements for calling back a calling subscriber(when the wanted subscriber ceases to be busy H04M 3/48)}
H04M 3/42204	. .	{Arrangements at the exchange for service or number selection by voice (at the terminal H04M 1/27)}
H04M 3/42212	. .	{ Call pickup (comprising simultaneous alerting H04M 3/46)}
H04M 3/42221	. .	{ Conversation recording systems (at the subscriber`s set H04M 1/656)}
H04M 3/42229	. .	{ Personal communication services, i.e. services related to one subscriber independent of his terminal and/or location (diverting calls from one subscriber to another subscriber, i.e. two different subscriptions H04M 3/54; selecting arrangements in intelligent networks H04Q 3/005)}
H04M 3/42238	. . .	{ in systems with telephone lines with multiple users}
H04M 3/42246	. . .	{ where the subscriber uses a multi-mode terminal which moves and accesses different networks with at least one network having a wireline access including cordless PBX}
H04M 3/42255	. . . .	{ with the subscriber having a personal network-independent number}
H04M 3/42263	. . .	{ where the same subscriber uses different terminals, i.e. nomadism}
H04M 3/42272	. . . .	{ whereby the subscriber registers to the terminals for personalised service provision}
H04M 3/4228	. .	{in networks}
H04M 3/42289	. . .	{ with carrierprovider selection by subscriber}
H04M 3/42297	. . .	{ with number portability}
H04M 3/42306	. . .	{ Number translation services, e.g. premium-rate, freephone or vanity number services}
H04M 3/42314	. .	{in private branch exchanges}
H04M 3/42323	. . .	{PBX`s with CTI arrangements}
H04M 3/42331	. . .	{ Direct inward dialling}
H04M 3/4234	. . .	{ Remote access to features of PBX or home telephone systems-teleworking in a PBX}
H04M 3/42348	. .	{ Location-based services which utilize the location information of a target}
H04M 3/42357	. . .	{ where the information is provided to a monitoring entity such as a potential calling party or a call processing server}
H04M 3/42365	. .	{ Presence services providing information on the willingness to communicate or the ability to communicate in terms of media capability or network connectivity}
H04M 3/42374	. . .	{ where the information is provided to a monitoring entity such as a potential calling party or a call processing server}
H04M 3/42382	. .	{ Text-based messaging services in telephone networks such as PSTN/ISDN, e.g. User-to-User Signalling or Short Message Service for fixed networks}
H04M 3/42391	. .	{where the subscribers are hearing-impaired persons, e.g. telephone devices for the deaf}
H04M 3/424	. .	Arrangements for automatic redialling (at the subscriber`s set H04M 1/27)
H04M 3/428	. .	Arrangements for placing incoming calls on hold
H04M 3/4281	. . .	{when the called subscriber is connected to a data network using his telephone line, e.g. dial-up connection, Internet browsing}

H04M 3/4283	. . .	{Call holding circuits}
H04M 3/4285	. . .	{Notifying, informing or entertaining a held party while on hold, e.g. Music On Hold}
H04M 3/4286	. . .	{Notifying a held subscriber when his held call is removed from hold}
H04M 3/4288	. . .	{Notifying a called subscriber of an incoming call during an ongoing call, e.g. Call Waiting}
H04M 3/432	. .	Arrangements for calling a subscriber at a specific time, e.g. morning call service
H04M 3/436	. .	Arrangements for screening incoming calls, { i.e. evaluating the characteristics of a call before deciding whether to answer it (based on the calling party profile H04M 3/42059; based on location H04M 3/42348; based on presence H04M 3/42365; diversion H04M 3/54)}
H04M 3/4365	. . .	{ based on information specified by the calling party, e.g. priority or subject}
H04M 3/44	. .	Additional connecting arrangements for providing access to frequently-wanted subscribers, e.g. abbreviated dialling (at the subscriber`s set H04M 1/27; automatic redialling H04M 3/424)
H04M 3/46	. .	Arrangements for calling a number of substations in a predetermined sequence until an answer is obtained
H04M 3/465	. . .	{ Arrangements for simultaneously calling a number of substations until an answer is obtained}
H04M 3/48	. .	Arrangements for recalling a calling subscriber when the wanted subscriber ceases to be busy
H04M 3/487	. .	Arrangements for providing information services, e.g. recorded voice services, time announcement
H04M 3/4872	. . .	{Non-interactive information services}
H04M 3/4874	. . . .	{Intercept announcements}
H04M 3/4876	. . . .	{Time announcements}
H04M 3/4878	. . . .	{Advertisement messages}
H04M 3/493	. . .	Interactive information services, e.g. directory enquiries; { Arrangements therefor, e.g. interactive voice response [IVR] systems or voice portals]
H04M 3/4931	. . . .	{Directory assistance systems}
H04M 3/4933	. . . . .	{ with operator assistance}
H04M 3/4935	. . . . .	{ Connection initiated by DAS system}
H04M 3/4936	. . . .	{Speech interaction details (speech recognition per se G10L 15/00)}
H04M 3/4938	. . . .	{ comprising a voice browser which renders and interprets e.g. VoiceXML}
H04M 3/50	. .	Centralised arrangements for answering calls; Centralised arrangements for recording messages for absent or busy subscribers (H04M 3/487 takes precedence; Centralised dictation systems H04M 11/10); {Centralised arrangements for recording messages}
H04M 3/51	. . .	Centralised call answering arrangements requiring operator intervention, { e.g. call or contact centers for telemarketing}
H04M 3/5108	. . . .	{Secretarial services}
H04M 3/5116	. . . .	{ for emergency applications}
H04M 3/5125	. . . .	{with remote located operators}
H04M 3/5133	. . . .	{ Operator terminal details}
H04M 3/5141	. . . .	{ Details of processing calls and other types of contacts in an unified manner (unified messaging in packet-switching networks H04L 12/589)}
H04M 3/515	. . . .	{Night service systems}

H04M 3/5158	. . . .	{in combination with automated outdialling systems (devices for signalling identity of wanted subscriber H04M 1/26)}
H04M 3/5166	. . . .	{ in combination with interactive voice response systems or voice portals e.g. as front-ends}
H04M 3/5175	. . . .	{ Call or contact centers supervision arrangements}
H04M 3/5183	. . . .	{ Call or contact centers with computer-telephony arrangements}
H04M 3/5191	. . . . .	{interacting with the Internet}
H04M 3/52	. . . .	Arrangements for routing dead number calls to operators
H04M 3/523	. . . .	with call distribution or queueing
H04M 3/5231	. . . . .	{ with call back arrangements}
H04M 3/5232	. . . . .	{Call distribution algorithms}
H04M 3/5233	. . . . . .	{Operator skill based call distribution}
H04M 3/5234	. . . . . .	{ Uniform load distribution}
H04M 3/5235	. . . . . .	{ Dependent on call type or called number (DNIS)}
H04M 3/5236	. . . . . .	{ Sequential or circular distribution}
H04M 3/5237	. . . . .	{Interconnection arrangements between ACD systems}
H04M 3/5238	. . . . .	{ with waiting time or load prediction arrangements}
H04M 3/527	. . .	Centralised call answering arrangements not requiring operator intervention
H04M 3/53	. . .	Centralised arrangements for recording incoming messages {i.e. mailbox systems}
H04M 3/5307	. . . .	{for recording messages comprising any combination of audio and non-audio components}
H04M 3/5315	. . . . .	{where the non-audio components are still images or video (still image mailbox systems H04N 1/324, intermediate storage of video signals for videophones H04N 7/147)}
H04M 3/5322	. . . .	{for recording text messages}
H04M 3/533	. . . .	Voice mail systems
H04M 3/53308	. . . . .	{Message originator indirectly connected to the message centre, e.g. after detection of busy or absent state of a called party}
H04M 3/53316	. . . . .	{Messaging centre selected by message originator}
H04M 3/53325	. . . . .	{Interconnection arrangements between voice mail systems}
H04M 3/53333	. . . . .	{Message receiving aspects}
H04M 3/53341	. . . . . .	{ Message reply}
H04M 3/5335	. . . . . .	{ Message type or catagory, e.g. priority, indication}
H04M 3/53358	. . . . . .	{ Message preview}
H04M 3/53366	. . . . .	{Message disposing or creating aspects}
H04M 3/53375	. . . . . .	{ Message broadcasting}
H04M 3/53383	. . . . . .	{ Message registering commands or announcements; Greetings}
H04M 3/53391	. . . .	{ dependent on calling party}
H04M 3/537	. . . .	Arrangements for indicating the presence of a recorded message, { whereby the presence information might include a preview or summary of the message}
H04M 3/54	. .	Arrangements for diverting calls for one subscriber to another predetermined subscriber {(based on the calling party profile H04M 3/42059; based on location H04M 3/42348; based on presence H04M 3/42365; to voice mail H04M 3/53308)}

H04M 3/541	. . .	{ based on information specified by the calling party}
H04M 3/543	. . .	{ Call deflection }
H04M 3/545	. . .	{ with loop avoiding arrangements}
H04M 3/546	. . .	{in private branch exchanges}
H04M 3/548	. . .	{ with remote control}
H04M 3/56	. .	Arrangements for connecting several subscribers to a common circuit, i.e. affording conference facilities ({ computer conferences H04L 12/1813}; video conference systems H04N 7/15)
H04M 3/561	. . .	{by multiplexing}
H04M 3/562	. . .	{ where the conference facilities are distributed}
H04M 3/563	. . .	{ User guidance or feature selection}
H04M 3/564	. . . .	{ whereby the feature is a sub-conference}
H04M 3/565	. . . .	{ relating to time schedule aspects}
H04M 3/566	. . . .	{ relating to a participants right to speak (protocols for floor control H04L 29/06421, H04L 29/06428, H04L 29/06435)}
H04M 3/567	. . .	{Multimedia conference systems}
H04M 3/568	. . .	{ audio processing specific to telephonic conferencing, e.g. spatial distribution, mixing of participants (echo suppression in two-way loud-speaking telephone systems H04M 9/02; sound field processing per se H04S 7/00E)}
H04M 3/569	. . . .	[N: using the instant speaker's algorithm (speech detection per se G10L 11/02)
H04M 3/58	. .	Arrangements for transferring received calls from one subscriber to another; Arrangements affording interim conversations between either the calling or the called party and a third party (substation line holding circuits H04M 1/80)
H04M 3/60	.	Semi-automatic systems, i.e. in which the numerical selection of the outgoing line is under the control of an operator
H04M 3/62	. .	Keyboard equipment {in key telephone systems H04M 9/003}
H04M 3/64	. .	Arrangements for signalling the number or class of the calling line to the operator (between operators in inter- exchange working H04M 5/18)
H04M 5/00		**Manual exchanges** (substation equipment in general H04M 1/00)
H04M 5/02	.	Constructional details (jacks, jack-plugs **H01R 17/00**, **H01R 21/00**)
H04M 5/04	.	Arrangements for indicating calls or supervising connections for calling or clearing
H04M 5/06	. .	affording automatic call distribution
H04M 5/08	.	using connecting means other than cords
H04M 5/10	.	using separate plug for each subscriber
H04M 5/12	.	Ringing or otherwise calling substations
H04M 5/14	.	Applications of speech amplifiers
H04M 5/16	.	with means for reducing interference; with means for reducing effects due to line faults

H04M 5/18	.	Arrangements for signalling the class or number of called or calling line from one exchange to another
H04M 5/20	. .	Number-indicating arrangements for incoming lines

H04M 7/00 **Interconnection arrangements between switching centres** (transmission arrangements in general H04B; { interconnection arrangements between PSTN/ISDN switching centres H04Q 3/00})

H04M 7/0003 . { Interconnection between telephone networks and data networks}

> **WARNING**
>
> This group is no longer used for the classification of new documents as from February 1, 2007. The backlog of this group is being continuously reclassified to subgroups of H04M 7/0024 or H04M 7/1205

H04M 7/0006 . . { where voice calls cross both networks}

> **WARNING**
>
> This group is no longer used for the classification of new documents as from February 1, 2007. The backlog of this group is being continuously reclassified to subgroups of H04M 7/0024 or H04M 7/1205

H04M 7/0009 . . { where voice calls remain entirely in the telephone network}

> **WARNING**
>
> This group is no longer used for the classification of new documents as from February 1, 2007. The backlog of this group is being continuously reclassified to subgroups of H04M 7/0024 or H04M 7/1205

H04M 7/0012 . { Details of application programming interfaces [API} for telephone networks; Arrangements which combine a telephonic communication equipment and a computer, i.e. computer telephony integration [CPI] arrangements]

H04M 7/0015 . . { First party call control architectures}

H04M 7/0018 . . { Computer Telephony Resource Boards}

H04M 7/0021 . . { Details of Application Programming Interfaces}

H04M 7/0024 . { Services and arrangements where telephone services are combined with data services (arrangements which combine a telephonic equipment and a computer H04M 7/0012)}

H04M 7/0027 . . { Collaboration services where a computer is used for data transfer and the telephone is used for telephonic communication}

H04M 7/003 . . { Click to dial services}

H04M 7/0033 . . { Notification or handling of incoming calls by a computer}

H04M 7/0036 . . { where the data service is an information service}

H04M 7/0039 . . { where the data service is provided by a stream of packets which are rendered in real time by the receiving terminal (audio streaming or audio streaming details of combined audio and video streaming **H04M 7/00M26**)}

H04M 7/0042	. .	{ where the data service is a text-based messaging service (H04M 7/0054 takes precedence)}
H04M 7/0045	. . .	{ where the text-based messaging service is an instant messaging service}
H04M 7/0048	. . .	{ where the text-based messaging service is a Short Message Service}
H04M 7/0051	. .	{ where the data service is a multimedia messaging service}
H04M 7/0054	. .	{ where the data service is an electronic mail service}
H04M 7/0057	. .	{ Services where the data services network provides a telephone service in addition or as an alternative, e.g. for backup purposes, to the telephone service provided by the telephone services network}
H04M 7/006	.	{ Networks other than PSTN/ISDN providing telephone service, e.g. Voice over Internet Protocol (VoIP), including next generation networks with a packet-switched transport layer (H04L 65/00 takes precedence; aspects not specific to the type of network H04M 3/00; special services in those networks H04M 3/42)}
H04M 7/0063	. .	{ where the network is a peer-to-peer network}
H04M 7/0066	. .	{ Details of access arrangements to the networks(where the access arrangement is a PSTN/ISDN access H04M 7/122)}
H04M 7/0069	. . .	{ comprising a residential gateway, e.g. those which provide an adapter for POTS or ISDN terminals}
H04M 7/0072	. .	{ Speech codec negotiation (H04L 65/1069 takes precedence)}
H04M 7/0075	. .	{ Details of addressing, directories or routing tables}
H04M 7/0078	. .	{ Security; Fraud detection; Fraud prevention}
H04M 7/0081	. .	{ Network operation, administration, maintenance, or provisioning}
H04M 7/0084	. . .	{ Network monitoring; Error detection; Error recovery; Network testing}
H04M 7/0087	. . .	{ Network planning or provisioning}
H04M 7/009	.	{in systems involving PBX or KTS networks}
H04M 7/0093	.	{ signalling arrangements in networks}
H04M 7/0096	.	{Trunk circuits}
H04M 7/06	.	using auxiliary connections for control or supervision { , e.g. where the auxiliary connection is a signalling system number 7 link}

WARNING

Not complete, see also other subgroups of H04M 7/00

H04M 7/063	. .	{ where the telephone network is a network other than PSTN/ISDN}
H04M 7/066	. .	{ where the auxiliary connection is via an Internet Protocol network (interworking of signalling system number 7 (SS7) with Internet Protocol-based session control protocols H04M 7/1265, H04M 7/127)}
H04M 7/08	.	for phantom working {(phantom working in transmission of digital information H04L 5/20)}
H04M 7/12	.	for working between exchanges having different types of switching equipment, e.g. power-driven and step by step, decimal and non-decimal, { circuit-switched and packet-switched, i.e. gateway arrangements}

WARNING

Not complete, see also other subgroups of H04M 7/00

H04M 7/1205	. .	{ where the types of switching equipement comprises PSTN/ISDN equipment and switching equipment of networks other than PSTN/ISDN, e.g. Internet Protocol networks}
H04M 7/121	. . .	{ Details of network access arrangements or protocols}
H04M 7/1215	. . . .	{ where a cable TV network is used as an access to the PSTN/ISDN}
H04M 7/122	. . . .	{ where the PSTN/ISDN access is used as an access to networks other than PSTN/ISDN (access arrangements to networks other than PSTN/ISDN H04M 7/0066; access arrangements to public data networks H04L 12/2856)}
H04M 7/1225	. . .	{ Details of core network interconnection arrangements}
H04M 7/123	. . . .	{ where the packet-switched network is an Internet Protocol Multimedia System-type network}
H04M 7/1235	. . . .	{ where one of the core networks is a wireless network}
H04M 7/124	. . .	{ where PSTN/ISDN interconnects two networks other than PSTN/ISDN}
H04M 7/1245	. . .	{ where a network other than PSTN/ISDN interconnects two PSTN/ISDN networks}
H04M 7/125	. . .	{ Details of gateway equipment}
H04M 7/1255	. . . .	{ where the switching fabric and the switching logic are decomposed such as in Media Gateway Control}
H04M 7/126	. . .	{ Interworking of session control protocols}
H04M 7/1265	. . . .	{ where the session control protocols comprise H.323 and SS7}
H04M 7/127	. . . .	{ where the session control protocols comprise SIP and SS7}
H04M 7/1275	. . .	{ Methods and means to improve the telephone service quality, e.g. reservation, prioritisation or admission control}
H04M 7/128	. . .	{ Details of addressing, directories or routing tables}
H04M 7/1285	. . .	{ Details of finding and selecting a gateway for a particular call}
H04M 7/129	. . .	{ Details of providing call progress tones or announcements}
H04M 7/1295	. . .	{ Details of dual tone multiple frequency signalling}
H04M 7/14	.	{ in systems involving main and subordinate switching centres}

WARNING

Not complete, see also other subgroups of H04M 7/00

H04M 7/16	.	in systems employing carrier frequencies
H04M 9/00		**Interconnection arrangements not involving centralised switching**
H04M 9/001	.	{Two-way communication systems between a limited number of parties}
H04M 9/002	.	{with subscriber controlled access to a line, i.e. key telephone systems}

H04M 9/003	. .	{Transmission of control signals from or to the key telephone set; signalling equipment at key telephone set, e.g. keyboard or display equipment (keyboard equipment in semi-automatic systems H04M 3/62)}
H04M 9/005	. .	{with subscriber controlled access to an exchange line}
H04M 9/006	. . .	{Exchange line circuits (subscriber line circuits H04M 3/005)}
H04M 9/007	. . .	{wherein the key telephone sets are star-connected to a central unit by a limited number of lines}
H04M 9/008	. .	{Multiplex systems}
H04M 9/02	.	involving a common line for all parties
H04M 9/022	. .	{Multiplex systems}
H04M 9/025	. . .	{Time division multiplex systems, e.g. loop systems}
H04M 9/027	. . .	{Frequency division multiplex systems}
H04M 9/04	.	involving a separate line for each pair of parties
H04M 9/06	.	involving combinations of interconnecting lines
H04M 9/08	.	Two-way loud-speaking telephone systems with means for suppressing echoes or otherwise conditioning for one or other direction of traffic (for line transmission in general H04B 3/20)
H04M 9/082	. .	{using echo cancellers (echo cancellers per se H04B 3/23)}
H04M 9/085	. .	{using digital techniques (H04M 9/082 takes precedence)}
H04M 9/087	. .	{using different frequency bands for transmitting and receiving paths (for line transmission in general H04B 3/21); using phase shifting arrangements}
H04M 9/10	. .	with switching of direction of transmission by voice frequency

H04M 11/00   **Telephonic communication systems adapted for combination with other electrical systems**

H04M 11/002	.	{with telemetering systems (telemetering in general G08C)}
H04M 11/005	. .	{using recorded signals, e.g. speech}
H04M 11/007	.	{with remote control systems (remote control in general G08C)}
H04M 11/02	.	with bell or annunciator systems (such systems in general G08)
H04M 11/022	. .	{Paging systems (personal calling arrangements or devices G08B 3/1008; selective calling networks H04Q 7/08)}
H04M 11/025	. .	{Door telephones (adapted for television H04N 7/186)}
H04M 11/027	. .	{Annunciator systems for hospitals}
H04M 11/04	.	with fire, police, burglar, or other alarm systems (such systems in general G08)
H04M 11/045	. .	{using recorded signals, e.g. speech}
H04M 11/06	.	Simultaneous speech and telegraphic or other data transmission over the same conductors (telegraphy in general H04L)
H04M 11/062	. .	{using different frequency bands for speech and other data}
H04M 11/064	. .	{Data transmission during pauses in telephone conversation}

| H04M 11/066 | . . | {Telephone sets adapted for data transmision} |
| H04M 11/068 | . . | {using time division multiplex techniques; integrated services digital networks H04Q 11/0428} |

| H04M 11/08 | . | adapted for optional reception of entertainment or informative matter (systems in which the information is continuously available on a carrier over the whole network H04H 20/81) |
| H04M 11/085 | . . | {using a television receiver, e.g. viewdata system} |

| H04M 11/10 | . | with dictation recording and playback systems (such systems in general G11B) |

H04M 13/00 **Party-line systems** (substation equipment H04M 1/00; exchange equipment H04M 3/00, H04M 5/00; metering arrangements H04M 15/36)

H04M 15/00 **Arrangements for metering, time-control or time indication** { ; Metering, charging or billing arrangements for voice wireline or wireless communications, e.g. VoIP}

| H04M 15/02 | . | Severing connection after predetermined time |

> **WARNING**
>
> This subgroup is no longer used for classification as from 01.05.2012. The backlog of this subgroup is being continuously reclassified to H04M 15/88G

| H04M 15/04 | . | Recording calls { , or communications} in printed, perforated or other permanent form |
| H04M 15/06 | . . | Recording class or number of calling { , i.e. A-party} or called party { , i.e. B-party} |

| H04M 15/07 | . | { Split billing, i.e. both A-party and B-party charged for the communication} |

| H04M 15/08 | . | Metering calls to called party { , i.e. B-party charged for the communication} |

| H04M 15/09 | . | { Third party charged communications} |

H04M 15/10	.	Metering calls from calling party; { , i.e. A-party charged for the communication}
H04M 15/12	. .	Discriminative metering { , charging or billing}
H04M 15/14	. . .	according to class of calling party
H04M 15/16	. . .	according to connection obtained
H04M 15/18	. . .	according to duration of the call { , or the communication}
H04M 15/20	. . . .	Operator`s time recording or indicating arrangements
H04M 15/22	. . .	according to time of day
H04M 15/24	. . .	Preventing metering of tax-free calls to certain lines, e.g. to fire or ambulance stations
H04M 15/26	. .	with a meter { or performing charging or billing} at the exchange controlled by an operator

| H04M 15/28 | . | with meter at substation { or with calculation of charges at terminal} |
| H04M 15/30 | . . | the meter { or calculation of charges} not being controlled from an exchange |

H04M 15/31	.	{ Distributed metering or calculation of charges}
H04M 15/32	.	{ Charging, billing or} metering arrangements for satellites or concentrators which connect one or more exchange lines with a group of local lines
H04M 15/34	.	{ Charging, billing or} metering arrangements for private branch exchanges
H04M 15/36	.	{ Charging, billing or} metering arrangements for party-lines
H04M 15/38	.	{ Charging, billing or} metering by apparatus other than mechanical step-by-step counter type
H04M 15/39	.	{ Arrangements for preventing metering, charging or billing}
H04M 15/41	.	{ Billing record details, i.e. parameters, identifiers, structure of call data record [CDR]}
H04M 15/42	.	{ Dynamic individual rates per user}
H04M 15/43	.	{ Billing software details}
H04M 15/44	.	{ Augmented, consolidated or itemized billing statement or bill presentation}
H04M 15/46	.	{ Real-time negotiation between users and providers or operators}
H04M 15/47	.	{ Fraud detection or prevention means}
H04M 15/48	.	{ Secure or trusted billing, e.g. trusted elements or encryption}
H04M 15/49	.	{ Connection to several service providers}
H04M 15/50	.	{ for cross-charging network operators}
H04M 15/51	.	{ for resellers, retailers or service providers}
H04M 15/52	.	{ for operator independent billing system}
H04M 15/53	.	{ using mediation}
H04M 15/54	.	{ for revenue sharing}
H04M 15/55	.	{ for hybrid networks}
H04M 15/56	.	{ for VoIP communications }
H04M 15/57	.	{ for integrated multimedia messaging subsystem [IMS]}
H04M 15/58	.	{ based on statistics of usage or network monitoring}
H04M 15/59	.	{ based on real time}
H04M 15/60	.	{ based on actual use of network resources}

H04M 15/61	.	{ based on the service used}
H04M 15/62	.	{ based on trigger specification}
H04M 15/63	.	{ based on the content carried by the session initiation protocol [SIP] messages}
H04M 15/64	.	{ On-line charging system [OCS]}
H04M 15/65	.	{ Off-line charging system}
H04M 15/66	.	{ Policy and charging system}
H04M 15/67	.	{ Transmitting arrangements for sending billing related information}
H04M 15/68	.	{ Payment of value-added services}
H04M 15/70	.	{ Administration or customization aspects; Counter-checking correct charges}
H04M 15/705	..	{ Account settings, e.g. limits or numbers or payment}
H04M 15/71	..	{ Modifying recharging resources}
H04M 15/715	..	{ Activating new subscriber or card}
H04M 15/72	..	{ by the user}
H04M 15/721	...	{ using the Internet}
H04M 15/723	...	{ using the user's device}
H04M 15/725	..	{ by the operator}
H04M 15/73	..	{ Validating charges}
H04M 15/735	..	{ Re-crediting user}
H04M 15/74	..	{ Backing up}
H04M 15/745	..	{ Customizing according to wishes of subscriber, e.g. friends or family}
H04M 15/75	..	{ Account location specifications}
H04M 15/751	...	{ Card based account, e.g. smart card, SIM card or USIM}
H04M 15/752	...	{ Terminal based account}
H04M 15/753	...	{ Network based account}
H04M 15/755	..	{ Account identification}
H04M 15/7553	...	{ via service number, e.g. calling card}
H04M 15/7556	...	{ by SIM, e.g. smart card account in SCP, SDP or SN}
H04M 15/76	..	{ Synchronization of distributed accounts}
H04M 15/765	..	{ Linked or grouped accounts, e.g. of users or devices}
H04M 15/7652	...	{ shared by users}
H04M 15/7655	...	{ shared by technologies}
H04M 15/7657	...	{ for closed subscriber group [CSG]}
H04M 15/77	..	{ involving multiple accounts per user}
H04M 15/771	...	{ per terminal or location, e.g. mobile device with multiple directory numbers}
H04M 15/772	...	{ per service, e.g. prepay or post-pay}
H04M 15/773	...	{ per technology, e.g. PSTN or wireless}

H04M 15/774	. . .	{ per card}
H04M 15/775	. .	{ Account specifications on parallel communications}
H04M 15/78	. .	{ Redistributing amount between accounts}
H04M 15/781	. . .	{ dynamically}
H04M 15/783	. . .	{ by user request}
H04M 15/785	. .	{ Reserving amount on the account}
H04M 15/79	. .	{ Virtual purses}
H04M 15/80	.	{ Rating or billing plans; Tariff determination aspects}
H04M 15/8005	. .	{ Flat-fee}
H04M 15/8011	. .	{ using class of subscriber}
H04M 15/8016	. .	{ based on quality of service [QoS]}
H04M 15/8022	. .	{ Determining tariff or charge band}
H04M 15/8027	. .	{ based on network load situation}
H04M 15/8033	. .	{ location-dependent, e.g. business or home}
H04M 15/8038	. .	{ Roaming or handoff}
H04M 15/8044	. .	{ Least cost routing}
H04M 15/805	. . .	{ Bidding}
H04M 15/8055	. . .	{ Selecting cheaper transport technology for a given service}
H04M 15/8061	. . .	{ Selecting least cost route depending on origin or type of service}
H04M 15/8066	. .	{ According to the number of recipients}
H04M 15/8072	. . .	{ Group, conference or multi-party call}
H04M 15/8077	. . .	{ Group MMS or SMS; Point-to-multi-point services or broadcast services}
H04M 15/8083	. .	{ involving reduced rates or discounts, e.g. time-of-day reductions or volume discounts}
H04M 15/8088	. .	{ involving increased rates, e.g. spam messaging billing differentiation}
H04M 15/8094	. .	{ Trial service, i.e. free of charge service for trial purposes}
H04M 15/81	.	{ Dynamic pricing, e.g. change of tariff during call}
H04M 15/82	.	{ Criteria or parameters used for performing billing operations}
H04M 15/8207	. .	{ Time based data metric aspects, e.g. VoIP or circuit switched packet data}
H04M 15/8214	. .	{ Data or packet based}
H04M 15/8221	. .	{ Message based}
H04M 15/8228	. .	{ Session based}
H04M 15/8235	. .	{ Access based}
H04M 15/8242	. .	{ Transaction based}
H04M 15/825	. .	{ based on the number of used channels, e.g. bundling channels, frequencies or CDMA codes}
H04M 15/8257	. .	{ Unit based}
H04M 15/8264	. .	{ Pulse based}
H04M 15/8271	. .	{ Based on the number of used services, e.g. call forwarding or call barring}
H04M 15/8278	. .	{ Event based}

H04M 15/8285	. .	{ Money or currency based}
H04M 15/8292	. .	{ Charging for signaling or unsuccessful connection}
H04M 15/83	.	{ Notification aspects}
H04M 15/835	. .	{ Time or frequency of notifications, e.g. Advice of Charge [AoC]}
H04M 15/8351	. . .	{ before establishing a communication}
H04M 15/8353	. . .	{ during the communication}
H04M 15/8355	. . .	{ after the end of the communication}
H04M 15/8356	. . .	{ in regular intervals}
H04M 15/8358	. . .	{ Dynamic change of the length or frequency of the notification interval }
H04M 15/84	. .	{ Types of notifications}
H04M 15/842	. . .	{ Announcement, e.g. IVR dialogue}
H04M 15/844	. . .	{ Message, e.g. SMS}
H04M 15/846	. . .	{ optical, e.g. icon}
H04M 15/848	. . .	{ Tone, e.g. beeper}
H04M 15/85	. .	{ characterised by the type of condition triggering a notification}
H04M 15/851	. . .	{ Determined tariff}
H04M 15/852	. . .	{ Low balance or limit reached}
H04M 15/853	. . .	{ Calculate maximum communication time or volume}
H04M 15/854	. . .	{ Available credit}
H04M 15/855	. . .	{ Successful event}
H04M 15/856	. . .	{ Unsuccessful event}
H04M 15/857	. . .	{ Cumulative charges}
H04M 15/858	. . .	{ Request users acknowledgement prior to use}
H04M 15/86	. .	{ Recipients of the notification}
H04M 15/863	. . .	{ multiple parties, e.g. multi party AOC}
H04M 15/866	. . .	{ a predetermined or undetermined destination, e.g. notifying a prepaid accounting server of a successful delivery of a service}
H04M 15/88	.	{ Provision for limiting connection, or expenditure}
H04M 15/881	. .	{ for continuing the call beyond the limit using allow grace}
H04M 15/882	. .	{ for continuing the call beyond the limit using an alternative, e.g. alternative account}
H04M 15/883	. .	{ linked escalation limits, i.e. establish, first or second limit}
H04M 15/885	. .	{ limit per application}
H04M 15/886	. .	{ limit per terminal}
H04M 15/887	. .	{ limit per user or user related number}
H04M 15/888	. .	{ severing connection after predetermined time or data}
H04M 15/90	.	{ using Intelligent Networks [IN] or Advanced Intelligent Networks [AIN]}
H04M 15/93	.	{ using near field or similar technologies}
H04M 17/00		**Prepayment** { of wireline communication systems, wireless communication systems or}

telephone systems (using a coded card to authorise calls from a telephone set H04M 1/675)

H04M 17/005	.	{ Disposable prepaid communication devices}
H04M 17/01	.	{ Cocot systems, i.e. private ownership of payphones}
H04M 17/02	.	Coin-freed or check-freed systems, { e.g. mobile- or card-operated phones, public telephones or booths}
H04M 17/023	. .	{Circuit arrangements}
H04M 17/026	. .	{Constructional features}
H04M 17/10	.	{ Account details or usage}
H04M 17/103	. .	{ using SIMs (USIMs) or calling cards}
H04M 17/106	. .	{ using commercial credit or debit cards }
H04M 17/20	.	{ with provision for recharging the prepaid account or card, or for credit establishment}
H04M 17/201	. .	{ automatic recharging with predetermined amount at threshold}
H04M 17/202	. .	{ selecting interactively a payment method}
H04M 17/203	. . .	{ cash-based recharging, i.e. physical input of coins or bank notes}
H04M 17/204	. .	{ on-line recharging e.g. cashless}
H04M 17/205	. . .	{ by calling a service number, e.g. interactive voice response [IVR] or menu}
H04M 17/206	. . .	{ by sending a message, e.g. SMS, MMS or EMS}
H04M 17/207	. . .	{ using signaling, e.g. USSD, UUS or DTMF}
H04M 17/208	. . .	{ using WAP or Internet , i.e. including electronic payment, e.g. e-cash }
H04M 17/30	.	{ using a code }
H04M 17/301	. .	{ Code input or reading }
H04M 17/302	. . .	{ from communication terminal display}
H04M 17/303	. . .	{ from material cards, i.e. magnetic stripe card}
H04M 17/304	. . .	{ Optical code recognition [OCR], e.g. bar code reader }
H04M 17/305	. . .	{ Wireless codes, e.g. Bluetooth or RFID}
H04M 17/306	. . .	{ using public code readers, e.g. public payment or recharge point}
H04M 17/307	. .	{ Code type e.g. alphanumeric code, bar code.}
H04M 17/308	. .	{ Code management}
H04M 17/35	.	{ Pay as you go }

H04M 19/00   **Current supply arrangements for telephone systems** (for selecting-equipment H04Q 1/28)

H04M 19/001	.	{Current supply source at the exchanger providing current to substations}
H04M 19/003	. .	{Arrangements for compensation of the DC flux in line transformers}
H04M 19/005	. .	{Feeding arrangements without the use of line transformers}

H04M 19/006	. .	{Circuits for increasing the range of current supply source}
H04M 19/008	. .	{Using DC/DC converters (DC/DC converters per se H02M 3/28)}
H04M 19/02	.	providing ringing current or supervisory tones, e.g. dialling tone, busy tone
H04M 19/023	. .	{by reversing the polarity of the current at the exchange}
H04M 19/026	. .	{Arrangements for interrupting the ringing current}
H04M 19/04	. .	ringing-current generated at substation
H04M 19/041	. . .	{ Encoding the ringing signal, i.e. providing distinctive or selective ringing capability}
H04M 19/042	. . .	{ with variable loudness of the ringing tone, e.g. variable envelope or amplitude of ring signal}
H04M 19/044	. . . .	{ according to the level of ambient noise}
H04M 19/045	. . .	{ Call privacy arrangements, e.g. timely inhibiting the ring signal}
H04M 19/047	. . .	{ Vibrating means for incoming calls}
H04M 19/048	. . .	{ Arrangements providing optical indication of the incoming call, e.g. flasher circuits}
H04M 19/06	.	Current supply source at subordinate switching centre charged from main exchange
H04M 19/08	.	Current supply source at substation (generating ringing current H04M 19/04)

H04M 99/00 **Subject matter not provided for in other groups of this subclass**

H04M 2001/00 **Substation equipment, e.g. for use by subscribers; Analogous equipment at exchanges** (prepayment telephone coin boxes H04M 17/00; current supply arrangements H04M 19/00; {telephone sets particularly adapted for data transmission H04M 11/066; network interface devices H04Q 1/028})

| H04M 2001/02 | . | Constructional features of telephone sets |
| H04M 2001/0202 | . . | { Portable telephone sets, e.g. cordless phones, mobile phones or bar type handsets (constructional features of telephone transmitters or receivers, e.g. of speakers or microphones H04M 1/03; mounting of the dialing module H04M 1/23; with protection against RF exposure H04B 1/3838)} |

> **WARNING**
>
> Groups H04M 1/0249 to H04M 1/0285 are not complete pending a reorganisation. See also group H04M 1/0202

H04M 2001/0204	. . .	including a battery compartment
H04M 2001/26	.	Devices for signalling identity of wanted subscriber (constructional features H04M 1/23)
H04M 2001/27	. .	Devices whereby a plurality of signals may be stored simultaneously {(devices disposed in the exchange H04M 3/424, H04M 3/44)}
H04M 2001/274	. . .	with provision for storing more than one subscriber number at a time, e.g. using toothed disc

H04M 2001/2745	. . . .	using static electronic memories, i.e. memories whose operation does not require relative movement between storage means and a transducer, e.g. chip; {(Fax machines H04N 1/32037)}
H04M 2001/274541	. . . . .	Predictive input, predictive dialling by comparing the dialled sequence with the content of a telephone directory
H04M 2017/00		**Prepayment** { of wireline communication systems, wireless communication systems or} **telephone systems** (using a coded card to authorise calls from a telephone set H04M 1/675)
H04M 2017/12	.	using calling, telephone credit/debit cards
H04M 2017/14	.	using commercial credit/debit cards, e.g. VISA, AMEX
H04M 2017/22	.	with automatic recharging of account/card, e.g. if limit is reached during connection the account is recharged automatically
H04M 2017/222	. .	at threshold
H04M 2017/225	. .	with predetermined amount
H04M 2017/227	. .	with amount selected interactively
H04M 2017/24	.	with on-line recharging of an account or card, e.g. cashless
H04M 2017/241	. .	by calling a service number IVR, menu
H04M 2017/243	. .	by sending a message, e.g. SMS,MMS, EMS
H04M 2017/245	. .	using money , i.e. physical input of coins or bank notes
H04M 2017/246	. .	using signalling, e.g. USSD, UUS, DTMF
H04M 2017/248	. .	using WAP or Internet , i.e. including electronic payment, e-cash, etc.
H04M 2017/25	.	using a code
H04M 2017/2506	. .	code input or reading
H04M 2017/2512	. . .	from communication terminal display
H04M 2017/2518	. . .	from material card, using a magnetic stripe card
H04M 2017/2525	. . .	optical code recognition (OCR), e.g. bar code reader
H04M 2017/2531	. . .	wireless, e.g. Bluetooth, RFID
H04M 2017/2537	. .	code reader
H04M 2017/2543	. . .	public, e.g. public recharge point
H04M 2017/255	. . .	local at the terminal itself
H04M 2017/2556	. .	code type
H04M 2017/2562	. . .	alphanumeric
H04M 2017/2568	. . .	bar code
H04M 2017/2575	. . .	pattern, i.e. single or changing sequences of pictures or patterns
H04M 2017/2581	. . .	punched holes
H04M 2017/2587	. . .	temporarily valid code
H04M 2017/2593	. .	code management
H04M 2017/26	.	with real-time recharging of account/card, e.g. if limit is reached during connection user is asked if he wants to recharge or not

H04M 2201/00		**Electronic components, circuits, software, systems or apparatus used in telephone systems**
H04M 2201/02	.	Diodes
H04M 2201/04	.	Transistors
H04M 2201/06	.	Integrated circuits
H04M 2201/08	.	Magnetic elements
H04M 2201/10	.	Logic circuits
H04M 2201/12	.	Counting circuits
H04M 2201/14	.	Delay circuits; Timers
H04M 2201/16	.	Sequence circuits
H04M 2201/18	.	Comparators
H04M 2201/20	.	Scanners
H04M 2201/22	.	Synchronisation circuits
H04M 2201/26	.	A/D convertors
H04M 2201/28	.	S/P convertors
H04M 2201/30	.	PCM
H04M 2201/32	.	Personal computers
H04M 2201/34	.	Microprocessors
H04M 2201/36	.	Memories
H04M 2201/38	.	Displays
H04M 2201/39	.	using speech synthesis (speech synthesis per se G10L 13/00)
H04M 2201/40	.	using speech recognition (speech recognition per se G10L 15/00)
H04M 2201/405	. .	involving speaker-dependent recognition (adaptation to speaker for speech recognition **G10L 15/06A3**)
H04M 2201/41	.	using speaker recognition (speaker recognition per se G10L 17/00)
H04M 2201/42	.	Graphical user interfaces
H04M 2201/50	.	Telephonic communication in combination with video communication

H04M 2201/52	.	Telephonic communication in combination with fax communication
H04M 2201/54	.	Object oriented software
H04M 2201/60	.	Medium conversion
H04M 2201/80	.	line protection circuits such as current or overvoltage protection circuits

H04M 2203/00   **Aspects of automatic or semi-automatic exchanges**

H04M 2203/05	.	related to OAM&P
H04M 2203/051	. .	technician dispatch system
H04M 2203/052	. .	software update
H04M 2203/053	. .	remote terminal provisioning, e.g. of applets
H04M 2203/055	. .	loopback testing
H04M 2203/056	. .	non-invasive testing, i.e. in operation testing without service interruption
H04M 2203/057	. .	distortion monitoring (QoS monitoring H04M 3/2227; quality of speech transmission monitoring H04M 3/2236)
H04M 2203/058	. .	signature devices
H04M 2203/10	.	related to the purpose or context of the telephonic communication
H04M 2203/1008	. .	Calls without connection establishment for implicit information transfer or as a service trigger
H04M 2203/1016	. .	Telecontrol
H04M 2203/1025	. . .	of avatars
H04M 2203/1033	. .	Remote administration, e.g. of web servers
H04M 2203/1041	. .	Televoting
H04M 2203/105	. .	Financial transactions and auctions, e.g. bidding (auctioneering devices in packet switching networks H04L 12/1804)
H04M 2203/1058	. .	Shopping and product ordering
H04M 2203/1066	. .	Game playing
H04M 2203/1075	. .	Telemetering, e.g. transmission of ambient measurements
H04M 2203/1083	. .	for hotels
H04M 2203/1091	. .	Fixed mobile conversion
H04M 2203/15	.	related to dial plan and call routing
H04M 2203/152	. .	Temporary dial plan
H04M 2203/154	. .	Functional or symbolic dial plan such as license plate numbers
H04M 2203/156	. .	On-line status dependent routing
H04M 2203/158	. .	Call-type dependent routing (route determination based on the nature of the carried application in packet switching networks **H04L 45/3006**)
H04M 2203/20	.	related to features of supplementary services

H04M 2203/2005	. .	Temporarily overriding a service configuration
H04M 2203/2011	. .	Service processing based on information specified by a party before or during a call, e.g. information, tone or routing selection
H04M 2203/2016	. .	Call initiation by network rather than by subscriber
H04M 2203/2022	. .	Path replacement
H04M 2203/2027	. .	Live party detection
H04M 2203/2033	. .	Call handling or answering restrictions, e.g. specified by the calling party
H04M 2203/2038	. .	Call context notifications
H04M 2203/2044	. .	Group features, e.g. closed user group
H04M 2203/205	. .	Broadcasting (broadcasting in packet switching networks H04L 12/18)
H04M 2203/2055	. .	Line restrictions
H04M 2203/2061	. .	Language aspects
H04M 2203/2066	. .	Call type detection of indication, e.g. voice or fax, mobile of fixed, PSTN or IP
H04M 2203/2072	. .	Schedules, e.g. personal calendars
H04M 2203/2077	. .	Call queuing apart from automatic call distribution
H04M 2203/2083	. .	Confirmation by serviced party
H04M 2203/2088	. .	Call or conference reconnect, e.g. resulting from isdn terminal portability
H04M 2203/2094	. .	Proximity
H04M 2203/25	.	related to user interface aspects of the telephonic communication service
H04M 2203/251	. .	where a voice mode or a visual mode can be used interchangeably
H04M 2203/252	. . .	where a voice mode is enhanced with visual information
H04M 2203/253	. . .	where a visual mode is used instead of a voice mode
H04M 2203/254	. . . .	where the visual mode comprises menus
H04M 2203/255	. .	comprising a personalized user interface
H04M 2203/256	. .	comprising a service specific user interface
H04M 2203/257	. .	remote control of substation user interface for telephonic services, e.g. by ISDN stimulus, ADSI, wireless telephony application WTA, MExE or BREW
H04M 2203/258	. .	Service state indications
H04M 2203/30	.	related to audio recordings in general
H04M 2203/301	. .	Management of recordings
H04M 2203/303	. .	Marking
H04M 2203/305	. .	Recording playback features, e.g. increased speed
H04M 2203/306	. .	Prerecordings to be used during a voice call
H04M 2203/308	. .	Personal name recording
H04M 2203/35	.	related to information services provided via a voice call
H04M 2203/351	. .	Pre or post-call/conference information service
H04M 2203/352	. .	In-call/conference information service
H04M 2203/353	. .	where the information comprises non-audio but is provided over voice channels (protocols for multimedia information services per se H04L 65/00)
H04M 2203/354	. .	Reverse directory service
H04M 2203/355	. .	Interactive dialogue design tools, features or methods

H04M 2203/356	. .	Phonecasting
H04M 2203/357	. .	Autocues for dialog assistance
H04M 2203/358	. .	Digital rights management
H04M 2203/359	. .	Augmented reality

H04M 2203/40	.	related to call centers
H04M 2203/401	. .	Performance feedback
H04M 2203/402	. .	Agent or workforce management
H04M 2203/403	. .	Agent or workforce training
H04M 2203/404	. .	Collaboration among agents
H04M 2203/405	. .	Competitive bidding for work items
H04M 2203/406	. .	Rerouting calls between call centers
H04M 2203/407	. .	Call center operated for multiple customers
H04M 2203/408	. .	Customer-specific call routing plans

H04M 2203/45	.	related to voicemail messaging
H04M 2203/4509	. .	Unified messaging with single point of access to voicemail and other mail or messaging systems (unified messaging in packet switching networks H04L 51/36)
H04M 2203/4518	. .	Attachments to voicemail (messages including annexed information, e.g. Attachments, in packet switching networks H04L 51/08)
H04M 2203/4527	. .	Voicemail attached to other kind of message
H04M 2203/4536	. .	Voicemail combined with text-based messaging
H04M 2203/4545	. .	Message forwarding (selective message forwarding in packet switching networks H04L 51/14)
H04M 2203/4554	. .	Sender-side editing
H04M 2203/4563	. .	Voicemail monitoring during recording
H04M 2203/4572	. .	Voicemail RSS
H04M 2203/4581	. .	Sending message identifiers instead of whole messages (notification of incoming messages in packet-switching networks H04L 51/24)
H04M 2203/459	. .	Calling party redirected to message centre on called party request

H04M 2203/50	.	related to audio conference
H04M 2203/5009	. .	Adding a party to an existing conference (conducting a computer conference, e.g. admission detection H04L 12/1822)
H04M 2203/5018	. .	Initiating a conference during a two-party conversation, i.e. three-party-service or three-way-call (computer conference organisation arrangements H04L 12/1818)
H04M 2203/5027	. .	Dropping a party from a conference (conducting a computer conference, e.g. admission detection H04L 12/1822)
H04M 2203/5036	. .	using conference for collection of feedback
H04M 2203/5045	. .	Selection of bridge/multipoint control unit (network arrangements for computer conference optimisation H04L 12/1827)
H04M 2203/5054	. .	Meet-me conference, i.e. participants dial-in
H04M 2203/5063	. .	Centrally initiated conference, i.e. Conference server dials participants (computer conference organisation arrangements H04L 12/1818)
H04M 2203/5072	. .	Multiple active speakers (conducting a computer conference, e.g. Admission detection H04L 12/1822)

H04M 2203/5081	. .	Inform conference party of participants, e.g. of change of participants (conducting a computer conference, e.g. admission detection, H04L 12/1822)
H04M 2203/509	. .	Microphone arrays
H04M 2203/55	.	related to network data storage and management
H04M 2203/551	. .	Call history (recording a computer conference H04L 12/1831)
H04M 2203/552	. .	Call annotations
H04M 2203/553	. .	Data upload
H04M 2203/554	. .	Data synchronization
H04M 2203/555	. .	Statistics, e.g. about subscribers but not being call statistics
H04M 2203/556	. . .	Statistical analysis and interpretation
H04M 2203/557	. .	Portable profiles
H04M 2203/558	. .	Databases
H04M 2203/559	. .	Sorting systems
H04M 2203/60	.	related to security aspects in telephonic communication systems (network architectures or network communication protocols for network security H04L 63/00)
H04M 2203/6009	. .	Personal information, e.g. profiles or personal directories being only provided to authorised persons
H04M 2203/6018	. .	Subscriber or terminal logon/logoff
H04M 2203/6027	. .	Fraud preventions
H04M 2203/6036	. .	Anti virus measures
H04M 2203/6045	. .	Identity confirmation
H04M 2203/6054	. .	Biometric subscriber identification
H04M 2203/6063	. .	Authentication using cards
H04M 2203/6072	. .	Authentication using challenger response
H04M 2203/6081	. .	Service authorization mechanisms
H04M 2203/609	. .	Secret communication
H04M 2203/65	.	related to applications where calls are combined with other types of communication
H04M 2203/651	. .	Text message transmission triggered by call (automatic reactions in messaging within packet-switching networks H04L 51/02)
H04M 2203/652	. .	Call initiation triggered by text message
H04M 2203/654	. .	Pre, in or post-call message
H04M 2203/655	. .	Combination of telephone service and social networking (messaging within social networks H04L 51/32)
H04M 2203/657	. .	Combination of voice and fax calls
H04M 2203/658	. .	Combination of voice calls and paging

H04M 2207/00		**Type of exchange or network, i.e. telephonic medium, in which the telephonic communication takes place**
H04M 2207/08	.	ISDN systems

H04M 2207/12	.	intelligent networks
H04M 2207/14	.	cable networks
H04M 2207/18	.	wireless networks
H04M 2207/182	. .	wireless circuit-switched
H04M 2207/185	. .	wireless packet-switched
H04M 2207/187	. .	combining circuit and packet-switched, e.g. GPRS
H04M 2207/20	.	hybrid systems
H04M 2207/203	. .	composed of PSTN and data network, e.g. the Internet
H04M 2207/206	. .	composed of PSTN and wireless network
H04M 2207/30	.	third party service providers
H04M 2207/35	.	virtual private networks
H04M 2207/40	.	terminals with audio html browser
H04M 2207/45	.	public-private interworking, e.g. centrex

H04M 2215/00   **Metering arrangements; Time controlling arrangements; Time indicating arrangements**

H04M 2215/01	.	Details of billing arrangements
H04M 2215/0104	. .	Augmented, consolidated or itemised billing statement, e.g. additional billing information, bill presentation, layout, format, e-mail, fax, printout, itemised bill per service or per account, cumulative billing, consolidated billing
H04M 2215/0108	. .	Customization according to wishes of subscriber, e.g. customer preferences, friends and family, selecting services or billing options, Personal Communication Systems (PCS)
H04M 2215/0112	. .	Dynamic pricing, e.g. change of tariff during call
H04M 2215/0116	. .	Provision for limiting expenditure, e.g. limit on call expenses or account
H04M 2215/012	. . .	Continue allow grace, e.g. accept negative balance
H04M 2215/0124	. . .	Continue alternative, i.e. alternative account to continue use
H04M 2215/0128	. . .	Linked escalation limits, establish, first or second limit
H04M 2215/0132	. . .	Limit per application
H04M 2215/0136	. . .	Limit per terminal
H04M 2215/014	. . .	Limit per user or user related number
H04M 2215/0144	. . .	Release upon reaching limit
H04M 2215/0148	. .	Fraud detection or prevention means
H04M 2215/0152	. .	General billing plans, rate plans, e.g. charge rates, numbering plans, rate centers, customer accounts
H04M 2215/0156	. .	Secure and trusted billing, e.g. trusted elements, encryption, digital signature, codes or double check mechanisms to secure billing calculation and information
H04M 2215/016	. .	Billing using Intelligent Networks (IN) or Advanced Intelligent Networks (AIN)

H04M 2215/0164	. .	Billing record, e.g. Call Data Record (CDR), Toll Ticket(TT), Automatic Message Accounting (AMA), Call Line Identifier (CLI), details, i.e. parameters, identifiers, structure
H04M 2215/0168	. .	On line or real-time flexible customization or negotiation according to wishes of subscriber
H04M 2215/0172	. .	Mediation, i.e. device or program to reformat CDRS from one or more switches in order to adapt to one or more billing programs formats
H04M 2215/0176	. .	Billing arrangements using internet
H04M 2215/018	. .	On-line real-time billing, able to see billing information while in communication, e.g. via the internet
H04M 2215/0184	. .	involving reduced rates or discounts, e.g. time-of-day reductions, volume discounts, cell discounts, group billing, frequent calling destination(s) or user history list
H04M 2215/0188	. .	Network monitoring; statistics on usage on called/calling number
H04M 2215/0192	. .	Sponsored, subsidised calls via advertising, e.g. calling cards with ads or connecting to special ads, free calling time by purchasing goods
H04M 2215/0196	. .	Payment of value-added services, mainly when their charges are added on the telephone bill, e.g. payment of non-telecom services, e-commerce, on-line banking
H04M 2215/14	.	Billing aspects relating to the actual charge
H04M 2215/143	. .	Non communication time, i.e. billing the user for the actual time used by the service, not for the time awaiting responses due to network problems; Billing the user when there is a satisfied QoS
H04M 2215/146	. .	Data billing, e.g. wherein the user is charged based only on the time he receives data
H04M 2215/20	.	Technology dependant metering
H04M 2215/2006	. .	Fixed telephone network, e.g. POTS, ISDN
H04M 2215/2013	. .	Fixed data network, e.g. PDN, ATM, B-ISDN
H04M 2215/202	. .	VoIP; Packet switched telephony
H04M 2215/2026	. .	Wireless network, e.g. GSM, PCS, TACS
H04M 2215/2033	. .	WLAN
H04M 2215/204	. .	UMTS; GPRS
H04M 2215/2046	. .	Hybrid network
H04M 2215/2053	. .	In based PPS
H04M 2215/206	. .	CDMA, i.e. Code Division Multiple Access
H04M 2215/2066	. .	Service node based PPS
H04M 2215/2073	. .	Multipoint, e.g. messaging, broadcast or group SMS
H04M 2215/208	. .	IMS, i.e. Integrated Multimedia messaging Subsystem
H04M 2215/2086	. .	xDSL Modem lines, e.g. HDSL or ADSL
H04M 2215/2093	. .	Push to talk
H04M 2215/22	.	Bandwidth or usage-sensitve billing
H04M 2215/24	.	Voice over IP billing
H04M 2215/26	.	Data billing charged as a voice call, i.e. based on time or unit charging

H04M 2215/28	.	SMS billing
H04M 2215/32	.	Involving wireless systems
H04M 2215/34	.	Roaming
H04M 2215/42	.	Least cost routing, i.e. provision for selecting the lowest cost tariff
H04M 2215/44	.	Charging/billing arrangements for connection made over different networks, e.g. wireless and PSTN, ISDN, etc.
H04M 2215/46	.	Connection to several service providers
H04M 2215/48	.	Sending information over a non-traffic network channel or another connection than the one actually used, e.g. signalling, D-channel, data and voice
H04M 2215/52	.	Interconnection, inter-exchange, reseller billing, billing agreements between different operators, e.g. billing identifier added on the CDR in order to cross charge the other operator, inter-operator accounting, reconciliation, bill directly resellers customers
H04M 2215/54	.	Resellers-retail or service providers billing, e.g. agreements with telephone service operator, activation, charging/recharging of accounts
H04M 2215/56	.	On line or real-time flexible agreements between service providers and telecoms operators
H04M 2215/62	.	Called party billing, e.g. reverse billing, freephone, collect call, 0800 or 0900
H04M 2215/64	.	Split billing, sharing the cost of calls, e.g. between calling and called parties
H04M 2215/66	.	Third party billing, i.e. third party can also be the predetermined telephone line of the caller if he is calling from another telephone set
H04M 2215/68	.	Billing calls completely to the calling party, except POTS, e.g. charge on caller`s choice service
H04M 2215/70	.	Administration aspects, modify settings or limits or counter-check correct charges
H04M 2215/7009	. .	Account settings, e.g. users, terminals, limits, numbers or payment
H04M 2215/7018	. .	Modify recharging resources, e.g. banking, credit, debit or phone account
H04M 2215/7027	. .	Activate new subscriber or card
H04M 2215/7036	. .	Administer via user
H04M 2215/7045	. . .	Using Internet or WAP
H04M 2215/7054	. . .	Using the phone
H04M 2215/7063	. .	Administer via operator
H04M 2215/7072	. .	Validate charges
H04M 2215/7081	. . .	Re-credit user, e.g. repay user with the amount or free time after finding an error in calculating the charges
H04M 2215/709	. .	Backup
H04M 2215/72	.	Account specifications

H04M 2215/7204	. .	Account location
H04M 2215/7209	. . .	Card based, e.g. smart card, SIM card or USIM
H04M 2215/7213	. . .	Terminal based
H04M 2215/7218	. . .	Network based
H04M 2215/7222	. .	Account identification
H04M 2215/7227	. . .	via service number, e.g. calling card
H04M 2215/7231	. . .	by SIM, e.g. smart card account in SCP, SDP or SN
H04M 2215/7236	. .	Synchronisation of distributed accounts
H04M 2215/724	. .	Linked accounts
H04M 2215/7245	. . .	Shared by users, e.g. group accounts or one account for different users
H04M 2215/725	. . .	Shared by technologies, e.g. one account for different access technologies
H04M 2215/7254	. . .	Multiple accounts per user
H04M 2215/7259	. . . .	per terminal or location; Mobile with multiple directory numbers
H04M 2215/7263	. . . .	per service, e.g. prepay and post-pay
H04M 2215/7268	. . . .	per technology, e.g. PSTN or wireless
H04M 2215/7272	. . . .	per card
H04M 2215/7277	. .	Account specifications on parallel communications
H04M 2215/7281	. . .	Redistribute amount between accounts
H04M 2215/7286	. . . .	Dynamically
H04M 2215/729	. . . .	by user request
H04M 2215/7295	. . .	Reserve amount , e.g. according to estimated costs for a typical communication duration or according to the estimated volume to be transferred
H04M 2215/74	.	Rating aspects, e.g. rating parameters or tariff determination apects
H04M 2215/7407	. .	class of subscriber
H04M 2215/7414	. .	QoS
H04M 2215/7421	. .	Determine tariff or charge band
H04M 2215/7428	. .	Load situation, e.g. Current network load, traffic load or available resources
H04M 2215/7435	. .	Location dependent, e.g. Bussiness or home
H04M 2215/7442	. .	Roaming
H04M 2215/745	. .	Least cost routing, e.g. Automatic or manual, call by call or by preselection
H04M 2215/7457	. . .	Biding
H04M 2215/7464	. . .	Select transport technology for a given service, e.g. use for data connection WLAN rather than GSM/UMTS/GPRS or use company's communication network rather than a public network
H04M 2215/7471	. . .	Select route depending on origin or type of service, e.g. route TDMA voice calls differently than VoIP calls
H04M 2215/7478	. .	According to the number of recipients
H04M 2215/7485	. . .	Group call; Conference call; Multi Party Call
H04M 2215/7492	. . .	Group MMS or SMS; Point-to-multi-point services, broadcast services
H04M 2215/78	.	Metric aspects
H04M 2215/7806	. .	Time based
H04M 2215/7813	. .	Time based data, e.g. VoIP or circuit switched packet data

H04M 2215/782	. .	Data or packet based
H04M 2215/7826	. .	Message based
H04M 2215/7833	. .	Session based
H04M 2215/784	. .	Access based
H04M 2215/7846	. .	Transaction based
H04M 2215/7853	. .	Based on the number of used channels, e.g. bundling channels or frequencies or CDMA codes
H04M 2215/786	. .	Unit based
H04M 2215/7866	. .	Pulse based
H04M 2215/7873	. .	Based on the number of used services, e.g. call forwarding or call barring
H04M 2215/788	. .	Event based
H04M 2215/7886	. .	Apply cheapest or best package, e.g. selection among available tariffs or packages (least cost routing H04M 2215/42)
H04M 2215/7893	. .	Money or currency based
H04M 2215/81	.	Notifying aspects, e.g. notifications or displays to the user
H04M 2215/8104	. .	Time or frequency of notification
H04M 2215/8108	. . .	before establishing a communication
H04M 2215/8112	. . .	during the communication
H04M 2215/8116	. . .	after the end of the communication
H04M 2215/812	. . .	in regular intervals
H04M 2215/8125	. . .	Dynamic change of the length/frequency of the length of the notification interval, e.g. depending on the remaining available prepaid credit
H04M 2215/8129	. .	Type of notification
H04M 2215/8133	. . .	Announcement, e.g. IVR dialogue, intelligent peripheral or switch
H04M 2215/8137	. . .	Message, e.g. alphanumeric text, SMS, MMS, EMS or www-based messaging service
H04M 2215/8141	. . .	Optical, e.g. flashing indication of a lamp, icon, soft-key or symbol
H04M 2215/8145	. . .	Tone, e.g. beeper, sound, wave
H04M 2215/815	. .	Notification when a specific condition, service or event is met
H04M 2215/8154	. . .	Determined tariff
H04M 2215/8158	. . .	Low balance or limit reached
H04M 2215/8162	. . .	Calculate maximum communication time or volume
H04M 2215/8166	. . .	Available credit
H04M 2215/817	. . .	Successful event, e.g. successful recharge or delivery of a service
H04M 2215/8175	. . .	Unsuccessful event, e.g. service rejected due to low credit
H04M 2215/8179	. . .	Cumulative charges
H04M 2215/8183	. . .	Request users acknowledgement prior to use
H04M 2215/8187	. .	Send to
H04M 2215/8191	. . .	multiple parties, e.g. multi party AOC
H04M 2215/8195	. . .	a predetermined or undetermined destination, e.g. notifying a prepaid accounting server of a successful delivery of a service, a connection, or chargeable content to a mobile terminal

H04M 2215/82	.	Advice-of-Charge (AOC), i.e. notify subscriber of charges/cumulative charge; meter at the substation
H04M 2215/825	. .	Select from different charging routines or algorithms or formulas
H04M 2215/92	.	Autonomous calculations of charges in terminal, i.e. meter not controlled from exchange
H04M 2215/96	.	Distributed calculation of charges, e.g. in different nodes like for mobiles between HLR and VLR, or between the terminal and the billing function

H04M 2242/00   **Special services or facilities**

H04M 2242/02	.	Broadcasting
H04M 2242/04	.	for emergency applications
H04M 2242/06	.	Lines and connections with preferential service
H04M 2242/08	.	menus for interactive user guidance
H04M 2242/10	.	Secret communications
H04M 2242/12	.	Language recognition, selection or translation arrangements
H04M 2242/14	.	with services dependent on location (where the service is an information service H04M 2242/15; services independent of location H04M 3/42229)
H04M 2242/15	.	Information service where the information is dependent on the location of the subscriber
H04M 2242/16	.	with computer telephone integration
H04M 2242/18	.	Automated outdialling systems
H04M 2242/20	.	Televoting service
H04M 2242/22	.	Automatic class or number identification arrangements

> **WARNING**
>
>> This group is no longer used for classification of new documents as from November 20, 2009. The backlog of this group is being continuously reclassified to H04M 3/42034 and H04M 3/42085]

H04M 2242/24	.	Detection or indication of type terminal or call, (e.g. fax, broadband)
H04M 2242/26	.	Paging systems
H04M 2242/28	.	Services making use of subscriber schedule information

H04M 2242/30	.	Determination of the location of a subscriber
H04M 2242/40	.	Data synchronization between user terminals and central server
H04M 2242/405	. .	Incremental backup

H04M 2250/00   **Details of telephonic subscriber devices**

H04M 2250/02	.	including a Bluetooth interface
H04M 2250/04	.	including near field communication means, e.g. RFID
H04M 2250/06	.	including a wireless LAN interface
H04M 2250/08	.	home cordless telephone systems using the DECT standard
H04M 2250/10	.	including a GPS signal receiver
H04M 2250/12	.	including a sensor for measuring a physical value, e.g. temperature or motion (telephones including GPS signal receivers H04M 2250/10)
H04M 2250/14	.	including a card reading device
H04M 2250/16	.	including more than one display unit
H04M 2250/18	.	including more than one keyboard unit
H04M 2250/20	.	including a rotatable camera
H04M 2250/22	.	including a touch pad, a touch sensor or a touch detector (digitizers for touch screens G06F 3/041)
H04M 2250/52	.	including functional features of a camera (constructional features concerning the integration of cameras in portable phones H04M 1/0264)
H04M 2250/54	.	including functional features of a projector or beamer module assembly (constructional features concerning the integration of projectors in portable phones H04M 1/0272)
H04M 2250/56	.	including a user help function
H04M 2250/58	.	including a multilanguage function
H04M 2250/60	.	logging of communication history, e.g. outgoing or incoming calls, missed calls, messages or URLs (logging of telephone numbers H04M 1/56, H04M 1/57)
H04M 2250/62	.	user interface aspects of conference calls
H04M 2250/64	.	file transfer between terminals (download of applications H04M 1/72525; transfer of messages, e.g. SMS, e-mail or MMS H04M 1/72547)

H04M 2250/66	.	user interface aspects for indicating selection options for a communication line
H04M 2250/68	.	with means for recording information, e.g. telephone number during a conversation (recording of telephone conversations H04M 1/656)
H04M 2250/70	.	methods for entering alphabetical characters, e.g. multi-tap or dictionary disambiguation (methods for entering alphabetical characters per se G06F 3/0237)
H04M 2250/72	.	user manuals of subscriber equipments, e.g. of mobile phones
H04M 2250/74	.	with voice recognition means (voice activated dialling H04M 1/271; voice recognition algorithms G10L 15/00)